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DOE Sets Schedule for Big Prize

Hard-Sell Push is on for $6-Billion Super Collider

If considered on its scientific merits, the $6-billion Superconducting Super Collider (SSC) would be relegated to the lower ranks of an overflowing list of unmet needs in and around American science. These range from the continuing, ruinous neglect of science education—slated for all of $99 million in this year's $1.6-billion National Science Foundation budget—to the collapse of the American space-science program, an event that preceded the Challenger catastrophe.

But the SSC, though obviously not without scientific merits, is depending on other qualities for getting through deficit-obsessed Washington and onto the books as a bankrolled project of the US government. In the coming months, the SSC will be swept along on a madcap nationwide rush of state authorities and Washington-based hucksters eager for this wondrously rich hunk of federal largess to land on the home territory. Which means that any legislator foolish enough to raise questions about *whether* it should be built will be regarded as a villain by hordes of colleagues and competitors

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who, in hot quest of the prize, don't care about that question. The mob is focused on a single issue: *where* is it to be built.

Meanwhile, the press has generally forsaken the basic question of rational scientific priorities, and, instead, is focusing on the secondary issue of the purity of the site-selection process, sniffing around for the possibility of a deal. After all, Lyndon Johnson planted the SSC's predecessor in high-energy politics, Fermilab, on a barren plain in Illinois as a sop to Republican Senate Leader Everett Dirksen. Few monumental projects are sited purely on technical merits. Thus, the possibility of a politically motivated selection surely exists, though that chapter in the SSC saga is far off.

The transition from slight consideration of the merits to frantic pursuit of the project has been assisted by two other devices of political salesmanship:

First are assurances that other nations will contribute substantially to the costs of this venture, when, in fact, nothing at all has been provided from abroad or even promised. Knowledgeable high-energy physicists have advised Congress not to expect any help from abroad beyond the customary big-science practice of visiting research groups financing their own experiments. Nonetheless, Energy Secretary John S. Herrington was glibly talking last week of other nations contributing "one quarter to 50 percent," though he promptly added that the SSC is "not contingent on foreign participation."

The second sales technique is built around vague hints that American scientific leadership and industrial competitiveness depend on going ahead with the SSC, though the modernday realities of science and industry

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In Brief

Few reports on the report-cluttered Washington scene have ever had such swift impact as the National Academy of Sciences' severe critique of the Reagan Administration's crackpot controls on high-tech exports, *Balancing the National Interest: US National Security Export Controls and Global Economic Competition* (SGR Vol. XVII, No. 2). Shortly after publication, it was the subject of a sympathetic hearing before the House Science, Space, and Technology Committee. A few days later, it was cited by Commerce Secretary Baldrige in support of relaxed controls.

Opinions vary about the merits of ***The Scientist****, the new biweekly tabloid, but on one point, there's no disagreement: It has no peers in presenting portraiture of its President-Publisher-Editor-in-chief, Eugene Garfield, head of the Institute for Scientific Information, which owns the paper. Each of the six issues published so far has carried a different photo of Garfield.*

On the orders of Director Erich Bloch, the National Science Foundation has for the first time drawn up proposed regulations governing "Misconduct in Science and Engineering Research." The move to written rules was inspired by a flock of recent revelations of fraudulent papers. NSF sources tell SGR that though the Foundation's grantees were not among the offenders, Bloch felt it would be desirable to prepare explicit rules for investigating charges and dealing with culprits. With a 60-day period for comment, the draft regulations were published February 10 in the *Federal Register*, page 4158. For additional information: Arthur Kusinksi or Sukari Smith (NSF General Counsel's Office), 202/357-7439.

...Site Proposals Due Between April and September

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are increasingly remote from particle physics. Industrial figureheads will surely be mobilized to speak out in behalf of the SSC—but when it comes to cash on the barrel, little, probably nothing, is to be expected from them.

The Department of Energy (DOE), the sole financier for the SSC, is in the comfortable position of not having to do much at all to sell the SSC to Congress, beyond occasionally throwing some red meat on the trail to heat up the race for the prize. That's what DOE Secretary Herrington was doing on February 10—10 days after the White House publicly endorsed the project—at a well-attended press conference devoted solely to the issue of the site selection process. The timetable for the selection process, he announced, would be as follows:

April to September 1987: solicitation of site proposals and screening within DOE.

October to December 1987: evaluation of the applications by a panel appointed by the National Academy of Sciences and the affiliated Academy of Engineering.

January to July 1988: "finding and selection of preferred site" by DOE's Energy System Acquisition Advisory Board.

A Presidential Decision?

January 1989: "Final site selection." By whom was not stated, but if the Fermi model is followed, it will be by the President—incumbent or freshly arrived, not clear. But, given the scale of the SSC project and the intense political interest it has aroused, the ingredients for a photo-finish drama will be available.

Herrington stated that the site criteria, scheduled to be issued around February 20, would include donation of all the land required for the 52-mile-around facility (up to 12,000 acres), suitable power supply, and "juxtaposition to universities." He added that a letter has been sent to all governors and members of Congress "to let them know about it," though that wasn't altogether necessary, he observed, since the project was well known throughout the country and "most of the candidates have already been working on this project for the last three years."

While Herrington's press conference fulfilled its stated purpose of announcing the timetable for a site decision, he also used the occasion to urge on the contenders and to assure even late starters that they, too, have a chance. Describing the SSC as "a tremendously popular project," he said "this is a major technology center, this is heavy university activity, obviously a lot of economic activity.

"It's a prestige project," the Secretary continued, noting that "we've been contacted by states for the last three years, asking is the project going forward . . . . Some of these states are out with several million dollars for their site-selection committees to do preliminary work, with no guarantee whatsover. It's not a cheap process to file the application for this tremendous facility." Noting that "probably six or seven [states] have spent money at this point," Herrington listed "the ones that seem to have moved money": Texas, California, Ohio, Utah, Colorado, Washington. "These are all strong programs at this point, but that does not give them an advantage in this process," he said, stressing that "I don't want to foreclose a state that has not gotten started but that has a good program for us."

No Head Start Advantage

A questioner asked, "How can you say that a state that has been working on this for the past three years would not have an advantage in the selection process?" Herrington replied: "Whether you have an advantage or not is in the eyes of the people who will make the selection . . . In the Department of Energy, we have no preordained opinions on this . . . and I guarantee you the National Academy of Sciences does not . . . Regardless of how much work you've done, the selection process will be fair and impartial."

Wouldn't Congress "get its hooks in this somewhere along the line?" Herrington was asked. "It would be hard for me to imagine a situation where Congress could get together enough to agree on a site," he replied. "This is a project that everybody is going to want, because it's going to mean a great deal to the state in the number of jobs. I do not anticipate that. It's going to be very hard for Congressional forces to question this process, because this is going to be an impartial process."

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...Report Dismissed Prospect of Foreign Assistance

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Herrington then tackled another issue that might dampen competition and thereby reduce political support: a suggestion to couple the SSC to the Fermilab's proton injector, at a claimed saving of $500 million in construction and equipment costs. Acknowledging familiarity with that proposal, Herrington replied, "I can tell you of at least two states [unnamed] that have said to us that we'll be happy to make up the $500 million, starting from ground zero." He then noted that the proposed Fermi link was frowned on "by some of the scientific people" as false economy, and he dismissed its claimed advantages as "a highly speculative statement, and I don't give it much credence."

Tie to Nuclear-Waste Dump?

The Secretary was asked about a mischievous proposal by Senator J. Bennett Johnston (D-La.), Chairman of the Energy and Natural Resources Committee and the Energy and Water Development Appropriations Subcommittee, to package the prized SSC with the universally unwanted "nuclear waste dump." Herrington replied that "it's not good policy to link these two separate projects." Neither is technically related to the other, he said, and their timetables are different, with the SSC due for completion by 1996, and a presidential decision on a nuclear waste site due in 1995. He then chastised the questioner for referring to the nuclear site as a "dump."

Referred to a "fact sheet" stating that "DOE is actively seeking cost sharing from foreign countries," Herrington said, "We are very interested in foreign cooperation. We have seen a lot of interest. Last week, I had conversations with the Director of the [European] CERN lab . . . . International cooperation is important for a project of this magnitude. They're too expensive for one country to do them. We can share this type of information. So, we're going to seek maximum contributions," Herrington declared. In response to a question on the amount, he replied, "I wouldn't be surprised if we could get anywhere from a quarter to 50 percent of this project [from other countries].

"But," he continued, "that's speculative. We need to get into the process here and find out who wants to play, what magnitude, and we'll be moving into that process right away . . . . But the important thing to remember . . . is we're talking leadership of this country in high-energy physics, and our decision to move forward in this project is not contingent on foreign participation and it is not contingent on anything other than our national goal to be a world leader in this particular field and stay where we have been."

Herrington's qualifier on foreign money was well-advised, since physicists eager for the project have sounded out their foreign colleagues without success. Though it has gone unnoted in public discussions of the SSC, the dim prospects for foreign money were frankly acknowledged in a report dated May 6, 1985, by the SSC Board of Overseers of Universities Research Associates (URA), the 56-member consortium that serves as DOE's contractor for research on the project.

The URA report stated that "vigorous pursuit by both Europeans and Japanese of their own programs leaves few resources available for SSC construction cost sharing." It noted that the strong interests that these nations are showing in high-energy physics "do not of themselves extend much hope that significant cost sharing during the construction process of the SSC is a reasonable prospect."

The situation could change, the report continued, if the US and other nations joined in the project "as a spectacular demonstration of international amity." But back in 1985, it didn't see any serious likelihood for that, and, given the just grievances that our foreign friends feel toward the Reagan Administration's highhanded technology-control tactics, it is doubtful that foreign physicists could sell their political chiefs on financing a super high-tech machine in the US.

Pledges No Strain on Budget

Herrington said that the project would proceed in the current fiscal year with $20 million instead of the $16 million budgeted prior to approval, and that a budget amendment would be submitted to provide a previously unplanned $35 million for fiscal 1988, which begins next October 1. In both cases, he said, funds would be reprogrammed without loss to other DOE activities. The budget for fiscal 1989 rises to $348 million, peaks at $709 million in 1994, and drops to $185 million in the final year of construction, 1996. The dollar amounts add up to $3.2 million for construction, plus $1.2 billion for equipment, for a total of $4.4 billion in 1988 dollars; carrying it forward at the guessed-at inflation rate for the next eight years produces the widely used figure of $6 billion in all.

Continuing to spin a magical tale, Herrington said that the SSC would not detract from current or planned spending on existing high-energy research facilities, because it will be budgeted "as a separate line item."

It has been widely reported that DOE Secretary Herrington sold the project to President Reagan at a "show-

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Science Teachers Head Blasts NSF Budget Priorities

How fares science education at the National Science Foundation, the main source of funds for curriculum innovation and teacher retraining? The supportive rhetoric is hot, but education still gets mere crumbs from NSF's increasingly bountiful budgets: $99 million for NSF Science and Engineering Education programs this year, a proposed $116 million next year (with another $34 million for education supposedly spread around laboratory research programs)—out of a proposed total NSF budget for fiscal 1988 of nearly $1.9 billion. The financial situation was discussed February 4 by Bill Aldridge, Executive Director of the National Science Teachers Association, at a meeting of education groups organized by the American Association for the Advancement of Science. Following are excerpts.

•

At the NSF we continue to encounter token support with assertions of increased activity. Yet the Foundation ignores the recommendations of its Science and Engineering Education Advisory Committee as well as of its Task Force on Undergraduate Science and Engineering Education. Mr. Bloch [Director of NSF] and his science and engineering directors continue to manipulate Science and Engineering Education budgets to provide supposedly increased amounts; yet these are but thinly disguised increases for the pipeline [of research funds] or research components, areas already bloated by increases.

Although the NSF claims that it has increased its commitment in "Education and Human Resources" [one among several science-education budget categories] from $30 million in 1987 to $68 million in 1988, the amounts are for the most part hidden among the research directorate budgets, without any mechanism for tracking. We can account only for the $14 million in 1987 and the $16 million in 1988. The balance is said to be in research in undergraduate institutions, $12.5 million in Science and Engineering Education, and some obscure distribution among other research directorates.

Education advice "largely ignored or perverted in this proposed budget."

There are two major conclusions one can draw from an examination of the NSF Science and Engineering Education budget: Precollege programs, the very area where documentation exists on the need, is being neglected in order to put even larger amounts into the basic research and pipeline system; the undergraduate programs are being neglected, and the few initiatives being taken are inappropriately assigned to research directorates where staff lack interest, expertise, or commitment to improve science or engineering education. Advice of the Science and Engineering Education Advisory Committee and the Task Force on Undergraduate Science and Engineering Education are largely ignored or perverted in this proposed budget.

Super Collider

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down" meeting late last month over the protests of at least several cabinet members who were appalled by the cost. Details on this matter, as with all decisions attributed these days to the beleaguered Ronald Reagan, are lacking. But even if the President were in top form, the outcome would probably have been the same. Reagan likes big high-tech projects, as evidenced by his personal backing for every one of them that's come his way, from the ill-advised Fast Breeder Reactor (shot down in Congress), on through the B-1 bomber revival, the MX, the manned space station, and the hypersonic "Orient Express."

One of the minor mysteries in the SSC decision-making process is the role of the White House Office of Science and Technology Policy (OSTP) and the Presidential Science Adviser, William R. Graham. Unlike his 10 White House predecessors, dating back to the establishment of the adviser's job amid the excitement of the Soviet Sputnik triumph, Graham does not merely shun the press but avoids it in fugitive fashion. What he's doing is a subject of increasing interest.

Testifying before the House Science, Space, and Technology Committee on January 28—two days before the White House announced approval of the SSC—Graham was asked when a decison would be made. He replied, "Within the next few months and probably sooner than that" (SGR Vol. XVII, No. 2). His performance leaves the question of whether he was cagey or ignorant.

Herrington has turned out to be a tough battler in behalf of the SSC, but really had no choice. As the lackluster heir to a ramshackle Department that the Reagan Administration early on eviscerated and tried to abolish, he has little to show for his tenure. If he didn't back the SSC—which was off and running in the Department before he became Secretary in February 1985—he would be recorded as the gravedigger of the grandest venture ever conceived by the barons of science.—DSG

France: New Science Policies Quickly Abandoned

Paris. It didn't take more than six months for the French government's new plans for scientific research and university policy to fall into confusion and stalemate. The end of that chapter came in December with the resignation under fire of Alain Devaquet, Minister for Research and Higher Education. The students brought him down with massive public demonstrations; the scientists stood aside or worked quietly against him.

Devaquet, a young physicist, was considered a bit too abrasive by some. Never expecting a long political career within his party—that of Prime Minister Chirac—he served nicely as a scapegoat not only for students and professors, but also for members of the government he served. He actually was one of the few within Chirac's government with a good knowledge of the organizational peculiarities and sensitivities of the French scientific enterprise. But that didn't help him.

Appointed to the job in March 1986, he was almost wholly immobilized from the start by the inertia of the science and education bureaucracies and the determination of influential figures in Chirac's entourage to shake up the science establishment. In terms of government structure, the essential fact was that the Chirac government, in contrast to its Socialist predecessor, does not have a separate Ministry of Research. Research was at one point attached to the Ministry of Industry, but now it is joined with Higher Education, and is under the control of the Minister of National Education. Under this arrangment, research suffers from a lack of political power and visibility.

Conflict Over CNRS

From March to September, Devaquet tried to reduce the role of government-supported autonomous research institutes in favor of research in the universities—an approach that sought to steer a course between the status quo and demands for an upheaval in research policy. In the conflict that naturally ensued, the focal point was the $2-billion-a-year National Center for Scientific Research (CNRS), whose nationwide network of laboratories and research programs is the mainstay of basic research in France.

Extremist members in the Chirac camp have long charged that CNRS is a stultified, backscratching system aloof from the country's economic needs, and they have forcefully demanded that it be broken up to provide for "a revitalization of research." Last June, in an abrupt departure from the non-partisan tradition that has governed relations between CNRS and its elected masters, CNRS Director-General Pierre Papon was fired. Devaquet's choice for a new Director General was a moderate, Serge Feneuille, a physicist serving as chief scientist of La Farge Coppee, a cement-making company that has been diversifying into high-tech enterprises.

In a statement to Parliament in October, Devaquet argued that CNRS should be permitted to continue its tradition of supporting research in all disciplines, including the economic and social sciences. These words provided some assurance for the CNRS traditionalists, but they were soon followed by government proposals to restructure the internal organization of CNRS in a fashion that would have reduced the roles of the labor unions in decision-making activities. In the negotiations

Bitterness on Left and Right

that followed, Devaquet and Feneuille managed to keep CNRS intact, but at the price of great bitterness on the left and the right, particularly against Devaquet.

Having suffered what was widely regarded as a defeat in their assault on CNRS, the extremists then pressured Devaquet to increase the power of the university professors, and to take a number of other steps aimed at boosting scientific and scholarly activities outside of CNRS. Nonetheless, this process of favoring the universities has not left the academics feeling that they face a bright future. While CNRS was being battered in the Chirac camp, a review of research in the universities, conducted by the National University Evaluation Committee, cruelly concluded that the quality of science in academe left much to be desired.

Meanwhile, funding for research has not fared well. The budget for 1987 is down by 15 percent from 1986. The Minister of Finance insists that it has actually increased by eight percent, but this is so only if military and civilian research are consolidated, which is not the customary way of counting R&D spending here. At the same time, employment of scientific and technical personnel has suffered a setback, with the number of positions declining by 239 instead of rising by 1400 authorized in a three-year plan of the last Socialist government.

The growth in that plan represented an effort to catch up with other major industrial nations in proportion of gross national product devoted to R&D. In 1985 France was the laggard, with 2.25 percent, compared to Britain, 2.50; Germany, 2.60; Japan, 2.70, and the US, 2.80.

In Parliamentary debate, Devaquet was attacked for the budget, which was described by one irate member as

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NAS Drops "Issues"; Gloomy Report on "Discover"

Issues, the quarterly policy journal of the National Academy of Sciences, will be discontinued in June, following publication of its 12th number.

Despite substantial promotional efforts keyed to the prestige of the Academy, the journal lagged far below expectations in circulation and influence. Paid subscriptions were reported to have peaked at about 12,000 and are now down to 9700. SGR hears that the annual cost to the Academy is some $300,000.

Originally conceived as a science-related counterpart to *Foreign Affairs,* the Academy journal was notable at the outset for reissues of lightly reworked writings and speeches that had appeared elsewhere. After that bad start, it improved considerably in originality and readability. But it never fully shook off the deadening solemnity of its sponsoring institution. Persons deeply concerned with science-policy affairs could get along without it very well—as many did.

The founding editor, Allen L. Hammond, who left in December, plans to publish a monthly newsletter, *Science Impacts,* starting in May. Hammond says the new publication is intended for a general audience and will report on new scientific and technical developments and their potential effects. (*Science Impacts,* $18 per year, 9612 Bexhill Dr., Kensington, Md. 20895; tel. 301/933-4033).

Meanwhile, there's another gloomy report about the condition of *Discover*, the Time Inc. monthly that's the sole survivor of the pop-science magazine boom that began at the end of the 1970s.

According to the January 26 *Gallagher Report,* a newsletter that reports on the publishing industry, "Time insiders give Bruce [Barnet, newly appointed publisher] little or no chance to make a go of *Discover.*" The report states that the magazine has lost $75 million since its startup, in 1980, and noting the weak advertising pull of the pop-science genre, predicts that Reg Brack, Time Inc.'s Magazine Group President, will "pull plug on publication by April 1 as Time Inc. President Nick Nicholas gives blessing to continue housecleaning efforts."

As if in response, *Discover* took the whole back page of the *New York Times* business section on February 12 for an advertisement that boasted of a 44 percent increase in ad pages in January, February, and March of this year, compared to the same months in 1986. "Wait till our second quarter," the ad stated. The numbers are in the right direction, but the 1986 advertising base was pitifully small.

The prospects for *Discover* appeared to brighten last year when the American Association for the Advancement of Science, in a widely criticized move, folded up its money-losing monthly, *Science86*, and sold its subscription list to *Discover.* Shortly after that, the Hearst Corp. terminated publication of *Science Digest,* and sold its list to *Discover* (SGR Vol. XVI, No. 13), thus giving *Discover* a whopping subscriber total of around 1.5 million.

But not even those numbers have drawn in sufficient advertising. *Discover* is plumper with ads than it used to be, but not plump enough to turn a profit. Advertising strategists say other publications are cheaper and more effective for reaching the types that subscribe to popular scientific magazines.

In terms of keeping the public abreast of science, the fate of the departed magazines and the uncertainty about *Discover* create grounds for concern. These publications all attained at least a reasonably high level of editorial quality and technical reliability, and on many occasions, they were outstanding. If their sustained publication depended only on audience interest, they would indeed be durable.

But in these matters, the whims of Madison Avenue are the dominating factor.

France

(Continued from page 5)

"an absurdity unworthy of the researcher you once were." But the poor Minister was really not to blame. It's the Minister of Finance who determines these things. Decreases were enacted this year without even consulting the Minister of Research or any representatives of the scientific community.

There is in France a High Council for Research and Technology, referred to as the Council of Wise Men, which offers advice to the government. Normally discreet and temperate, the Council has recently become aggressively outspoken. The year 1986, it declared, ended a consistent record of net financial growth dating back to 1979. The fault, it concluded, lies with the Ministry of Finance.

Devaquet quit under pressure from student demonstrators aroused by plans to allow the universities to be more selective in their admissions policies. When the pressure mounted, he found few supporters to back him. The extremists and the accountants were overjoyed, while the scientists did not mourn his departure.

His successor, Jacques Vallade, comes with good professional and political credentials. A chemistry professor from the University of Bordeaux, he is an elected member of the national Senate, and is a protege of Bordeaux Mayor Jacques Chaban-Delmas, who is also President of the National Assembly. Vallade's appointment has been well received in scientific circles. But there are no illusions or great expectations about the place of research in the priorities of the government.—FS

To the Editor: IEEE Vote

While Mikhail Gorbachev is pushing for multi-candidate elections in the USSR, the chiefs of another closed society, the 270,000-member Institute of Electrical and Electronics Engineers (IEEE), have reembraced the traditional Soviet model of one candidate per office. They have done so after experiencing the shock of a near-victory by a dissident, petition-borne presidential candidate against two handpicked establishment figures (SGR Vol. XVI, No. 20). The runner-up, Irwin Feerst, a longtime maverick in IEEE affairs, came within 242 votes of winning, whereupon the IEEE Board reestablished the practice of fielding solo official nominees in the next election. The change avoids dilution of establishment power. The decision is defended in excerpts from the following letter to SGR:

•

IEEE members, through their elected officers and directors, exclusively determine the policies and activities of the Institute . . . . IEEE election procedures, as set down in the IEEE Constitution, Bylaws, and Policy and Procedures Manual, are designed to be both unbiased and democratic. The Board must nominate "at least one" candidate for President-elect and Executive Vice President, but anyone interested in running as a petition candidate needs signatures of only one percent of the voting members . . . The bottom line is that IEEE members have elected petition candidates if these are determined, by the members, to be the best candidate . . .

The Board has a tradition of giving members a choice in elections. However, when there is a likelihood of at least two candidates representing two established positions, namely to continue along existing lines or to revamp the entire organizational goals and products, there is no reason for the Board to nominate a third candidate. Indeed, I cannot imagine, for example, the Republican Party nominating both Vice President Bush and Senator Dole to run against a single Democratic candidate in the 1988 Presidential election.

. . . . when it comes to the IEEE, it cannot truly be said that the press [according to SGR] "pays very little attention to the politics of professional societies."

I share your wish for increased member participation in association elections, but feel that the IEEE voter response to date shows that our membership, by and large, is satisfied with the way the Institute serves their professional and technical needs.

Harry L. Bachman
1987 IEEE President

In Print

The following publications are obtainable as indicated in the boldface headings—not from SGR.

From US General Accounting Office, PO Box 6015, Gaithersburg, Md. 20877; tel. 202/275-6241.

University Funding: Patterns of Distribution of Federal Research Funds to Universities (GAO/RCED-87-67BR, 54 pages, no charge for 1-5 copies; $2 each for more), a feast of statistics on the politically volatile issue of equity in distribution of federal R&D funds to academe. Requested last year by Senator Mark Hatfield (R-Oregon) while he chaired the Appropriations Committee, the GAO study found that between 1967 and 1984, only 19 arrivals and departures occurred on the list of the top 100 university recipients of federal R&D funds; the top 100 received 88 percent of the total in 1967, and 86 percent in 1984. Dropouts from the top 20 during those years: NYU, University of Maryland, Duke, and Princeton; replacing them: UC San Diego, UC San Francisco, USC, and Penn State. With comparative data covering geographic distribution, disciplinary patterns, top 100, and so forth, the report is a must for the battle kit of pork-barrel warriors.

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From National Academy of Engineering, Office of External Affairs, 2101 Constitution Ave. NW, Washington, DC 20418; tel. 202/334-2210.

Public Attitudes Toward Engineering and Technology (No charge; Part 1, 105 pages, An Analysis of Existing Survey Data; Part II, 45 pages, A Qualitative Analysis), compiled from a variety of surveys, this is a product of the are-we-loved? anxieties that increasingly afflict the professions. The conclusion is that for engineers, the answer is yes, "but there is some evidence that public esteem for the profession, though still comparatively excellent, has slipped in the past two or three years."

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News Notes: Ethics, House Subcommittee, Hughes, Etc.

Rep. Willis Gradison (R-Ohio) has been named Chairman of the Congressional Biomedical Ethics Board, succeeding Senator Lowell P. Weicker Jr. (R-Conn.), who served as founding Chairman of the 12-member group. Senator Albert Gore (D-Tenn.) has been named Vice Chairman.

The Board, established in 1985 to study and advise Congress on biomedical issues, is yet to get moving. Still to come is the appointment of a 14-member advisory committee, which is expected to be announced during the next few weeks.

•

Rep. Robert A. Roe (D-NJ), Chairman of the rejunated House Science, Space, and Technology Committee, has taken the Chairmanship of the Subcommittee on Investigations and Oversight, the most far-ranging subcommittee among the Committee's six. There's one new subcommittee in the lineup—International Scientific Cooperation, chaired by Rep. Ralph M. Hall (D-Texas).

•

The Howard Hughes Medical Institute and Rockefeller University have announced a collaborative program for which Hughes "will invest in the range of $100 million in research and related functions" at Rockefeller over the next 10 years. The program will be carried out on the Rockefeller campus through a Hughes unit, one of 20 that the Bethesda, Md., Institute supports at major medical centers in the US.

Tim Beardsley, Washington correspondent for the British weekly *Nature* for the past two years, has moved to *Scientific American*. He will report for the magazine's Science and the Citizen section from a newly established Washington office (910 17th St. NW, Washington, DC 20006; tel. 202/457-9592).

Scientific American was purchased last year by a West German publisher, Verlagsgruppe Georg von Holtzbrinck. Editorial management remains unchanged so far. But the long overdue introduction of Washington-based reporting for the pallid Science and the Citizen section suggests that the new owners aim to rouse the magazine from its long-running torpor.

•

The Department of Energy has added the Fermilab and the Lawrence Berkeley Laboratory to its program of two-week summer sessions for high school science students. Governors of the 50 states have each been invited to select four students for the program. Also taking part are the Lawrence Livermore and Brookhaven National Laboratories.

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